



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,908	02/21/2002	Laszlo Hars	US 020049	3943

24737 7590 03/10/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

PARTHASARATHY, PRAMILA

ART UNIT PAPER NUMBER

2136

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/081,908	<b>Applicant(s)</b> HARS, LASZLO	
	<b>Examiner</b> Pramila Parthasarathy	<b>Art Unit</b> 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/29/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. An initialed copy of the information disclosure statement (IDS) submitted on 9/29/2003 is attached to this office action.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 4 is objected to under 37 CFR 1.75 as being a substantial duplicate of claims 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 7 is objected to under 37 CFR 1.75 as being a substantial duplicate of claims 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

3. Claims 1 – 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 20 of U.S. Patent No. 6,675,113. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

The instant's application:

Claim 1, as an example, recites: (1) generating a stream of random numbers; (2) determining an average number of bits that have a value of a predetermined logic value at determining an average number of bits that have a value of a predetermined logic value at a specific, predefined range of intervals; (3) applying each of the average

number of bits indicative of said predetermined logic value to an exponential averaging operation (A); and, (4) determining whether said generated random numbers are unpredictable by comparing the output of said exponential averaging operation (A) to a predetermined acceptance range.

The Patent 6675113:

Claim 1 recites: (1) generating a continuous stream of random binary bits; (2) applying said generated random bits to an exponential monobit-run frequency operation to compute average monobit-run frequency values for a range of monobit-run length values; (3) determining whether said generated random bits are insufficiently random when any of the average monobit-run frequency value falls repeatedly outside said predetermined acceptance range more than a predefined number of times.

The limitations **(1), (2), (3)** and **(4)** in instant application claim evaluating the random numbers generated by a random number. The limitations **(1), (2),** and **(3)** in 6,675,113 claim testing randomness when generating a random number. It is clearly that the limitations **(1), (2), (3)** and **(4)** in instant application are more specific comparing to the limitation **(1), (2),** and **(3)** in the patent 6,675,113, which are more generic. Therefore, it is clearly that claims 1 –20 of patent 6,675,113 anticipate claims 1 – 22 of instant application.

Georgia-Pacific Corp. v. United States Gypsum Co., 195 F.3d 1322, 1326, 52 USPQ2d 1590, 1593 (Fed. Cir. 1999). Second, the court determines whether the differences in subject matter between the two claims render the claims patentably

distinct. Id. at 1327, 52 USPQ2d at 1595. A later claim that is not patentably distinct from an earlier claim in a commonly owned patent is invalid for obvious-type double patenting. In re Berg, 140 F.3d 1428, 1431, 46 USPQ2d 1226, 1229 (Fed. Cir. 1998). A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). “ ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

4. Claims 1 – 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 21 of U.S. Patent No. 6,947,960. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

The instant's application:

Claim 1, as an example, recites: (1) generating a stream of random numbers; (2) determining an average number of bits that have a value of a predetermined logic value at determining an average number of bits that have a value of a predetermined logic

Art Unit: 2136

value at a specific, predefined range of intervals; (3) applying each of the average number of bits indicative of said predetermined logic value to an exponential averaging operation (A); and, (4) determining whether said generated random numbers are unpredictable by comparing the output of said exponential averaging operation (A) to a predetermined acceptance range.

The Patent 6947960:

Claim 1 recites: (1) generating a continuous stream of random binary bits; (2) storing said generated random bits in a memory medium; (3) shifting said stored random sequences by a predetermined amount, (4) computing modified products of bit sequences between said stored random sequences and said shifted random sequences to determine an average auto correlation value (5) determining whether said generated random bits are sufficiently random by comparing said determined average auto correlation value to a predetermined acceptance range.

The limitations **(1), (2), (3)** and **(4)** in instant application claim evaluating the random numbers generated by a random number. The limitations **(1), (2), (3), (4)** and **(5)** in 6,947,960 claim testing randomness when generating a random number. It is clearly that the limitations **(1), (2), (3)** and **(4)** in instant application are more generic comparing to the limitation **(1), (2), (3), (4)** and **(5)** in the patent 6,947,960, which are more specific. Therefore, it is clearly that claims 1 –21 of patent 6,947,960 is obvious over claims 1 – 22 of instant application.

Art Unit: 2136

"The exemplary Claim 1 in instant application is generic to the species of invention covered by claim 1 of the patent. Thus, the generic invention is "**anticipated**" by the species of the patented invention. Cf., *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4 . This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. *In re Van Ornum*, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); *Schneller*, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting."

(*In re Goodman* (CA FC) 29 USPQ2d 2010 (12/3/1993).

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP 804.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.



5. Claims 1 – 14 and 19 – 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite a method for performing a mathematical function. The claimed invention comprises a plurality of mental steps whereby the claimed mental steps are non-statutory subject matter. Specifically, the claimed method steps can be practiced mentally in conjunction with pen and paper.

However, in order for such a claimed computer-related process to be statutory, the method claims must include either a step that results: (1) in a physical transformation outside the computer, (2) in a limitation to a practical application, or (3) performed specific machine/element(s). Accordingly, Claims 1 – 14 and 19 – 22 are clearly directed to non-statutory process.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 6, 8, 13, 14, 17, 18, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 6, 13, 17 and 21, the limitation "exponential averaging operation" is indefinite because its definition cited in the claim is not exponential average operation but rather the claim expression becomes a linear function count because  $n$  is defined as a very large number and the relationship of  $n$  parameter is not defined.

For examination purposes, the examiner disregards the expression cited and considers the exponential averaging operation as averaging operation.

Claims 8, 14, 18 and 22 are also rejected for being dependent on the rejected base claims 6, 13, 17 and 21 respectively.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**7.** Claims 1 – 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Keane (U.S. Patent Number 5,873,781).

Art Unit: 2136

8. Regarding Claims 1 and 19, Keane teaches generating a stream of random numbers (Column 11 lines 11 – 16);

determining an average number of bits that have a value of a predetermined logic value at a specific, predefined range of intervals (Column 11 lines 11 – 16);

applying each of the average number of bits indicative of said predetermined logic value to an exponential averaging operation (A) (Column 11 lines 25 – 32); and,

determining whether said generated random numbers are unpredictable by comparing the output of said exponential averaging operation (A) to a predetermined acceptance range (Column 11 lines 25 – 32).

9. Regarding Claim 9, Keane teaches generating a stream of random numbers of binary bits using said random number generator (Column 11 lines 11 – 16);

determining an average number of bits that have a value of a predetermined logic value at a specific, predefined range intervals (Column 11 lines 11 – 16);

computing an exponential averaging operations (A) on the average number of bits indicative of said predetermined logic value (Column 11 lines 44 – 55);

comparing the output of said exponential averaging operation (A) to a predetermined acceptance range (Column 11 lines 11 – 43); and,

determining that said generated random numbers are predictable when the output of said computed exponential averaging operation (A) falls outside said predetermined acceptance range (Column 11 lines 25 – 32).

**10.** Regarding Claim 15, Keane teaches a random generator unit for generating substantially random sequences of binary bits (Column 11 lines 11 – 16);

a detector unit, coupled to the output of said random generator unit, for detecting whether said generated random sequences are unpredictable (Column 11 lines 11 – 16); and,

a switching unit, coupled to the outputs said random generator unit and said detector unit, for disabling the flow of said generated random sequences for a subsequent application when said generated random sequences are determined to be predictable (Column 11 lines 11 – 16),

wherein an average number of bits that have a value of a predetermined logic value at a specific, predefined range of intervals is determined and applied to exponential averaging operations (A) and wherein, if the output of said exponential averaging operations (A) falls outside a predetermined acceptance range, determining that said generated random sequences are predictable (Column 11 lines 25 – 32).

**11.** Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Keane teaches wherein the value of said predetermined logic value is one of 1's and 0's (Column 11 lines 11 – 16).

**12.** Claims 3, 4, 7, 10, 16 and 20 are rejected as applied above in rejecting claims 1, 15 and 19. Furthermore, Keane teaches the step of determining that said generated random numbers are predictable when the output of said exponential averaging

operation (A) falls outside said predetermined acceptance range (Column 11 lines 25 – 32).

**13.** Claim 5 is rejected as applied above in rejecting claim 1. Furthermore, Keane teaches updating all said exponential averaging operations (A) each time a new bit is generated (Column 11 line 11 – 16).

**14.** Claims 11 are rejected as applied above in rejecting claim 9. Furthermore, Keane teaches notifying that nonrandom numbers are generated when said computed exponential averaging operation (A) repeatedly falls outside said predetermined acceptance range more than a predefined number of times (Column 12 lines 40 – 50).

**15.** Claims 12 are rejected as applied above in rejecting claim 9. Furthermore, Keane teaches generating a new set of random numbers when said computed exponential averaging operation (A) repeatedly falls outside said predetermined acceptance range more than a predefined number of times (Column 12 lines 29 – 39).

***Allowable Subject Matter***

**16.** Claims 6, 8, 13, 14, 17, 18, 21 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and 35 U.S. C. 101, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

**17.** Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Applicant is urged to consider the references. However, the references should be evaluated by what they suggest to one versed in the art, rather than by their specific disclosure. If applicants are aware of any better prior art than those are cited, they are required to bring the prior art to the attention of the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on 8:00a.m. To 5:00p.m.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-232-3795. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy  
February 28, 2006.

  
**AYAZ SHEIKH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**